FINAL
SITE HEALTH AND SAFETY PLAN
EMERGENCY AND RAPID RESPONSE SERVICES

EATON SUGAR BEET FACTORY– EATON, CO

Prepared for

U.S. Environmental Protection Agency - Region 8
1595 Wynkoop
Denver CO 80202

Contract No.: EP-W-07-052
Task Order: 069
Project No: ES8-69

November 10, 2011

ENVIRONMENTAL RESTORATION

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I hereby certify that the enclosed Site Health and Safety Plan, shown and marked in this submittal, has been prepared in accordance with OSHA 29 CFR 1910 and is proposed to be incorporated with Contract No.: EP-w-07-052 Task Order 069. This Site Health and Safety Plan is submitted for Government approval.

Plan Preparer:

Matt Francis Response Manager	11/15/11 Date	303-994-6611 Phone Number

Plan Approval:

Lonnie R. Wright Vice President, Health and Safety	12/2/11 Date	636-680-2422 Phone Number

Accepted as a submittal:

Pete Stevenson On Scene Coordinator USEPA Region 8	11/15/11 Date	303-312-6799 Phone Number

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ATTACHMENTS

GLOSSARY OF ACRONYMS

ACM	Asbestos Containing Material
AHA	Activity Hazard Analysis
ANSI	American National Standards Institute
COC	contaminant of concern
CFR	Code of Federal Regulations
CIH	Certified Industrial Hygienist
CPR	Cardiopulmonary Resuscitation
CRZ	Contamination Reduction Zone
CSP	Certified Safety Professional
dBA	decibel A-weighted
DEET	N, N-diethyl-m-toluamide
EMR	experience modification rate
EMT	emergency medical technician
ERRS	Emergency and Rapid Response Services
USEPA	United States Environmental Protection Agency
EZ	Exclusion Zone
HASP	Site Health and Safety Plan
HAZWOPER	Hazardous Waste Operation and Emergency Response
HIPO	high loss potential
HMIS	Hazardous Materials Identification System
HTRW	hazardous, toxic and radioactive waste
IDLH	immediately dangerous to life and health
kV	Kilovolt
MCL	Maximum Contaminant Level
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
mg/m^3	milligrams per cubic meter
MSDS	Material Safety Data Sheet
NFPA	National Fire Prevention Association
NIOSH	National Institute of Occupational, Safety and Health
NPL	National Priority List
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
PM	Project Manager
POL	petroleum, oils, and lubricants
PPE	personal protective equipment
ppm	parts per million
RIR	recordable incident rate
SCBA	self-contained breathing apparatus
SOP	Standard Operating Procedure
SOW	Scope of Work
START	Superfund Technical Assistance and Response Team
SHSO	Site Health and Safety Officer
WNV	West Nile Virus

1.0 INTRODUCTION AND SITE ENTRY REQUIREMENTS

This document describes the health and safety guidelines developed for the Eaton Sugar Beet Factory Asbestos Site, to protect on-site personnel, visitors, and the public from physical harm and exposure to hazardous materials or wastes. The procedures and guidelines contained herein were based upon the best available information at the time of the plan's preparation. Specific requirements will be revised when new information is received or conditions change. A written amendment will document all changes made to the plan. Any amendments to this plan will be included in Attachment A. Where appropriate, specific OSHA standards or other guidance will be cited and applied.

All work practices and procedures implemented on site must be designated to minimize worker contact with hazardous materials and to reduce the possibility of physical injury. All work will be performed in accordance with applicable Federal 29 CFR 1910 and 1926 health and safety regulations, including the Federal 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response regulation.

1.1 Daily Safety Meetings

Daily safety meetings will be held at the start of each shift to ensure that all personnel understand site conditions and operating procedures, to ensure that personal protective equipment is being used correctly and to address worker health and safety concerns.

1.2 Site Specific Training and Acknowledgement

The Response Manager shall be responsible for informing all individuals assigned to this project of the contents of this plan and ensuring that each person signs the Site Specific Training Record Attachment Z. By signing the Health and Safety Plan Acknowledgment Form, individuals are recognizing the potential hazards present on-site and the policies and procedures required to reduce the risk of exposure or adverse effects associated with these hazards.

1.3 Key Personnel

Project/Task Order: TBD – Eaton Sugar Beet Factory Asbestos	
Key Personnel	
Names and Titles	**Contact Information**
Pete Stevenson – USEPA Region 8, OSC	303 312 6799 (Office) Email: stevenson.peter@epa.gov
Matt Francis – ER Response Manager	303-994-6611(Mobile) Email: m.francis@erllc.com
Vince Parker – ER SHSO	406-334-1152(Mobile) Email: v.parker@erllc.com
Lonnie R. Wright – ER Project HS Manager	636-680-2422 (Office) 636-262-0862 (Mobile) Email: l.wright@erllc.com
Subcontractors	
Company	**Scope of Services**
NA	NA

2.0 ROLES AND RESPONSIBILITIES

2.1 Response Manager (RM): Matt Francis

The Response Manager, as the field representative for ER and its subcontractors, has the responsibility for implementing the Site Health and Safety Plan (HASP). The RM shall manage the project and ensure all health and

safety requirements are met. The RM is the Site Health and Safety Officer for this project. Therefore, the RM is responsible for the duties listed in Section 2.2.

2.2 Site Health and Safety Officer (SHSO): Vince Parker

The ER Site Health and Safety Officer is assigned to the site on a full-time basis with functional responsibility for assisting the RM with implementing the HASP.

Specific Duties Include:

a. Assist RM in providing a safe and healthful work environment.
b. Supervise confined space entries.
c. Assist RM in reporting and investigating all incidents.
d. Ensure proper decontamination of personnel and equipment is accomplished.
e. Ensure that air monitoring equipment is calibrated and operational.
f. Conduct personal air monitoring as required.
g. Perform respirator fit tests, as necessary.
h. Inventory and inspect PPE prior to personnel entries into exclusion zone.
i. Prepare summary letter of personal air sampling results.
j. Ensure proper personal protective equipment is being utilized.
k. Assist RM in obtaining required personnel training and medical records.
l. Inspect first aid kits and fire extinguishers.

2.3 Other:

Any persons who observe a health and safety hazard should immediately report observations/concerns to appropriate key personnel listed in Section 2.1 or 2.2 above.

2.4 U.S. EPA On-Scene Coordinator (OSC):

The OSC has overall project authority and directs the project manager regarding the tasks required to meet project objectives. The OSC has the authority to stop work and initiate corrective actions should there be a reason to do so.

3.0 SITE BACKGROUND AND SCOPE OF WORK

3.1 Site Background

The Eaton Sugar Beet Site (Site) is located in Eaton, Weld County, Colorado on the east side of US Hwy 85 and northeast of Weld County Rd 74. The Site is a former 43.11 acre sugar processing facility comprised of two dilapidated houses, 4-story main factory building, boiler house, machine shop, lime house, former warehouse, and a former office building. The factory was previously operated by Eaton Sugar Beet Factory and has since changed ownership to the town of Eaton. The town of Eaton is interested in the redevelopment of the property into an industrial park and has requested assistance from the USEPA to address the current environmental conditions of the site.

A Phase II Site Assessment was recently conducted at the site revealing large amounts of both friable and non-friable asbestos containing material (ACM) throughout the property. In addition, elevated levels of heavy metals and SVOCs were also detected in soil samples as well as abandoned containers located around the facility. Therefore, ER has been issued a task order for the time-critical removal of the various environmental hazards at the site.

3.2 Scope of Work

Environmental Restoration (ER) has been tasked by the EPA to perform a time critical removal action at the site. The main task at the site is to address the ACM exposed to the general public and environment. The major project task shall consist of the following items as identified in the TO SOW and during the initial site walk:

1. Mobilize equipment and personnel for the removal
2. Install appropriate decontamination facilities specific to ACM operations
3. Secure site
4. Excavate contaminated soil
5. Remove ACM from site structures
6. Provide transportation and disposal (T&D) of all ACM waste to an approved facility

4.0 HAZARD ASSESSMENT

This section is to be addressed in the daily tool box safety meeting as each task is to be initiated. Each Activity Hazard Analysis is designed to develop awareness to chemical and physical hazards specific to each task. It would be impractical to repeat in complete detail each control measure and SOP for each job task. Sources, Hazards and Control Measures will be addressed for each job task.

Specific work tasks with unique hazards and/or PPE requirements must be evaluated or reevaluated prior to beginning work. This task review will be led by the Project Health and Safety Manager and the SHSO, and will include knowledgeable individuals such as the worker(s) and the supervisor. PPE requirements, based on this assessment, will be included in Section 6 of the HASP or in the AHA for the specific task. All workers must be trained in the requirements of the HASP and the applicable AHAs prior to beginning work. The required PPE may be changed by the SHSO, based on the results of additional air monitoring, or on task-specific needs. Downgrades will require the approval of the Project Health and Safety Manager unless otherwise permissible by the HASP.

The following section outlines the AHAs, Referenced Standard Operations Procedures (SOPs) and Chemical Hazards associated with this project. Applicable SOPs are available from ER's Health and Safety Database. AHAs will be developed for each of the SOW activities listed in Section 3.2 and submitted prior to the start of field work.

The AHAs should be revised for site-specific activities and reviewed with the work crew before commencing any activity.

The following table lists ER health and safety SOPs that are applicable to this project.

Referenced SOPs:	
ER SOPs applicable to this project or task order:	
HS-01 Air Monitoring and Sampling HS-02 Blood Borne Pathogens Exposure Control Plan HS-04 Flammable Liquid Transfer (Bonding and Grounding) HS-05 Cold Stress HS-07 Boom Type Mobile Cranes and Pile Drivers HS-08 Decontamination Measures HS-10 Motor Vehicle Operation HS-11 Drum Handling HS-12 Electrical Safety - General HS-14 Fall Protection HS-15 Hazard Communication HS-16 Hearing Conservation HS-17 Heat Stress	HS-18 Heavy Equipment Operation HS-19 Hoists and Rigging HS-20 Hot Work HS-24 Personal Protective Equipment HS-26 Respiratory Protection HS-27 Scaffolding Safety HS-33 Asbestos Control HS-40 Forklifts HS-38 Fire Prevention Protection HS-49 Tool Safety and Inspection HS-50 First Aid HS-51 Incident Reporting and Investigation HS-52 General Waste Management HS-53 Spill Prevention Response
UXO known or suspected to present?	UXO support and plans provided

Referenced SOPs:			
ER SOPs applicable to this project or task order:			
Yes ☐	No ☑	Yes ☐	No ☑
Lifts Yes ☑	No ☐		
Items to be lifted: Building components		Critical ☑	Ordinary ☐
Excavations Yes ☑	No ☐		

4.1 Chemical Hazards

Site Contaminants/Chemicals of Concern					
Chemical	**Media**	**PEL**	**TLV**	**Route of Entry**	**Symptoms Acute/Chronic**
Asbestos	Solid	.1 f/cc Excursion 1.0 f/cc	.1 f/cc	Inhalation	Pneumoconiosis; lung cancer; mesothelioma

The above listing should not be taken as a complete assessment of the hazards posed by materials at the Eaton Sugar Beet Factory Site. Although the primary hazard is asbestos, the industrial facility could also present known and unknown mixed chemical hazards preventing a clear determination of the specific effects of discrete compounds. Therefore, personnel must be alert for symptoms of possible exposure such as unusual smells, stinging, burning eyes, nose and throat, skin irritation, as well as feeling extremely well, depressed, sleepy or tired. Symptoms must be immediately reported to the site supervisor.

4.2 Task Specific Hazards and Controls

This section is to be addressed in the daily tool box safety meeting as each task is to be attempted. Each Activity Hazard Analysis is designed to develop awareness to chemical and physical hazards specific to each task. It would be impractical to repeat in complete detail each control measure and SOP for each job task. Sources, Hazards and Control Measures will be addressed for each job task.

Activity Hazard Analysis		
Job Task: **Mobilization and Site Setup**		
Personal Protective Equipment: **Level D**		
Hazard	**Sources**	**Control Measures**
Struck by/caught between	Vehicle & Equipment Operation/Traffic	Follow HS-10 Motor Vehicle Operation Follow HS-18 Heavy Equipment Operation Only qualified drivers permitted to operate vehicles Obtain eye contact w/operator prior to entering area Wear ANSI Type 2 high-visibility safety vest Avoid walking between equipment and stationary objects Wear seat belts at all times while in operation Use spotter when feasible Back up alarms shall be operational and loud enough to hear Control work area to authorized personnel only

Activity Hazard Analysis		
Job Task: **Mobilization and Site Setup**		
Personal Protective Equipment: **Level D**		
Cuts/Punctures	Sharp Objects	Beware of sharp objects Wear cut resistant gloves Wear proper footwear to prevent nail puncture
Ergonomics	Lifting and Bending	Follow HS-36 Proper Lifting Techniques Use Buddy system Use mechanical means when feasible
Heat Stress	Work in protective coveralls	Follow HS-17 Heat Stress Schedule proper breaks Maintain communication/observation of co-worker Cool break area Proper hydration
Cold Stress	Seasonal Temperatures	Follow HS-05 Cold Stress Provide warm break area and warm fluids Dress in layers
Noise	Equipment/vehicles Hand tools	Hearing protection required when use powered hand tools Hearing protection required when operating open-cab equipment Hearing protection for levels > 85 dBs
Slips/Trips/Falls	Uneven Terrain Debris Ice and snow Building condition	Identify/mark hazards Remove debris from walking / working surfaces Remove Ice, snow

Activity Hazard Analysis		
Job Task: **Construct Landfill Cell for ACM Disposal**		
Personal Protective Equipment: **Level D PPE**		
Hazard	**Sources**	**Control Measures**
Struck by/caught between	Vehicle & Equipment Operation/Traffic	Follow HS-10 Motor Vehicle Operation Follow HS-18 Heavy Equipment Operation Only qualified drivers permitted to operate vehicles Obtain eye contact w/operator prior to entering area Wear ANSI Type 2 high-visibility safety vest Avoid walking between equipment and stationary objects Wear seat belts at all times while in operation Use spotter when feasible Back up alarms shall be operational and loud enough to hear Control work area to authorized personnel only
Cold Stress	Seasonal Temperatures	Follow HS-05 Cold Stress SOP Provide warm break area and fluids Dress in layers
Noise	Equipment/vehicles Hand tools	Hearing protection required when use powered hand tools Hearing protection required when operating open-cab equipment Hearing protection for levels > 85 dBs
Slips/Trips/Falls	Uneven Terrain Debris Ice and snow	Identify/mark hazards Remove debris from walking / working surfaces Remove Ice, snow

Activity Hazard Analysis		
Job Task: **Excavation of Contaminated Debris/Materials**		
Personal Protective Equipment: **Level C PPE**		
Hazard	**Sources**	**Control Measures**
Exposure to asbestos containing materials (ACM)	Insulation Building debris	Use proper PPE per section 6 Keep materials wet/moist

Activity Hazard Analysis		
Job Task: Excavation of Contaminated Debris/Materials		
Personal Protective Equipment: Level C PPE		
		Water haul roads to minimize dust Avoid personnel contact with ACM or contaminated materials Control work area to authorized personnel only
Struck by/caught between	Vehicle & Equipment Operation/Traffic	Follow HS-10 Motor Vehicle Operation Follow HS-18 Heavy Equipment Operation Only qualified drivers permitted to operate vehicles Obtain eye contact w/operator prior to entering area Wear ANSI Type 2 high-visibility safety vest Avoid walking between equipment and stationary objects Wear seat belts at all times while in operation Use spotter when feasible Back up alarms shall be operational and loud enough to hear Control work area to authorized personnel only
Ergonomics	Lifting and Bending	Proper lifting techniques / Buddy system Use mechanical means when possible
Heat Stress	PPE Usage	Follow HS-17 Heat Stress SOP
Dermatitis	Poison Ivy/Oak	Beware of plants Avoid Contact
Noise	Equipment/vehicles Hand tools	Hearing protection required when use powered hand tools Hearing protection required when operating open-cab equipment Hearing protection for levels > 85 dBs
Cuts/Punctures	Sharp Objects	Beware of sharp objects Wear cut resistant gloves
Slips/Trips/Falls	Uneven Terrain Debris Ice and snow	Identify/mark hazards Remove debris from walking / working surfaces Remove Ice, snow Cover floor openings and secure covers Repair structural damage as needed to abate hazard Furnish light to work area Establish and mark safe travel routes to/from work zone Block off unsafe stairwells Institute "no roaming" policy

Activity Hazard Analysis		
Job Task: Asbestos Abatement Inside Building		
Personal Protective Equipment: Level C PPE		
Hazard	**Sources**	**Control Measures**
Exposure to asbestos containing materials (ACM)	Insulation Building debris	Follow HS-33 Asbestos Control Plan Use proper PPE per section 6 Keep materials wet/moist Water haul roads to minimize dust Avoid personnel contact with ACM or contaminated materials Control work area to authorized personnel only
Struck by/caught between	Vehicle & Equipment Operation/Traffic	Follow HS-10 Motor Vehicle Operation Follow HS-18 Heavy Equipment Operation Only qualified drivers permitted to operate vehicles Obtain eye contact w/operator prior to entering area Wear ANSI Type 2 high-visibility safety vest Avoid walking between equipment and stationary objects Wear seat belts at all times while in operation Use spotter when feasible Back up alarms shall be operational and loud enough to hear Control work area to authorized personnel only
Ergonomics	Lifting and Bending	Proper lifting techniques / Buddy system Use mechanical means when possible Remove pieces in sizes conducive to safe handling

Activity Hazard Analysis		
Job Task: Asbestos Abatement Inside Building		
Personal Protective Equipment: Level C PPE		
Heat Stress	Work in protective coveralls	Follow HS-17 Heat Stress SOP Schedule proper breaks Maintain communication/observation of co-worker Cool break area Proper hydration
Burns, Fires	Hot Cutting pipes and vessels	Follow HS-20 Hot Work Safety PPE for abatement and flame protection shall be used Fire Watch 30min after stop cutting Check for flammable vapors prior to and during cutting operations Check pipes and vessels for residual prior to cutting and isolate
Noise	Equipment/vehicles Hand tools	Hearing protection required when use powered hand tools Hearing protection required when operating open-cab equipment Hearing protection for levels > 85 dBs
Cuts/Punctures	Sharp Objects	Beware of sharp objects Wear cut resistant gloves
Slips/Trips/Falls	Uneven surfaces Holes in floors Debris Broken Stairs	Identify/mark hazards Remove debris from walking / working surfaces Cover floor openings and secure covers Repair structural damage as needed to abate hazard Furnish light to work area Establish and mark safe travel routes to/from work zone Block off unsafe stairwells Institute "no roaming" policy Remove Ice, snow at building entrances/exits

4.3 Physical Hazards

PHYSICAL/ENVIRONMENTAL HAZARD ANALYSIS		
HAZARD	PRE PLANNING TO CONTROL HAZARD	ACTIVE CONTROL MEASURES
Electrical	1. Locate and mark existing energized lines. 2. De-energize lines if necessary to perform work safely. 3. All electrical circuits will be grounded. 4. All 120 volt single phase which are not a part of the permanent wiring will have a ground-fault interrupter in place. 5. Temporary wiring will be guarded, buried or isolated by elevation to prevent accidental contact by personnel or equipment. 6. Evaluate potential for high moisture/standing water areas and define special electrical wiring needs-typically requirement for low voltage lighting systems.	1. Utilize Qualified Electrical Contractor for any new or temporary electrical construction. 2. Ensure electrical equipment/material meet all local, state and federal code and specifications 3. Use GFCI for all power tool usage.
Ergonomic	1. All operations evaluated for ergonomic impact. 2. Procedures written to define limits of lifting, pulling, etc. 3. Procedures to define how personnel will utilize proper ergonomic concepts and utilize mechanical material handling equipment. 4. Necessary mechanical material handling equipment specified and ordered for project.	1. Proper body mechanics techniques stressed and enforced on a daily basis. 2. Mechanical handling equipment maintained and utilized. 3. Proper body mechanics stressed in scheduled safety meetings. 4. Injuries reported and medically treated if in doubt about severity. 5. Operations changed as necessary based on injury experience or potential.
Existing Site Topography	1. Survey site prior to layout. Identify areas unsafe for personnel or equipment due to physical conditions. 2. Identify/locate existing utilities. 3. Determine impact of site operations on surrounding properties, communities, etc. 4. Identify mechanized equipment routes both on site and onto and off the site. 5. Layout site into exclusion and contamination reduction zones based on initial site evaluation.	1. Awareness to work environment - regular inspection/audits to identify changing conditions. 2. Shut down operations when unknown conditions encountered.
Fires &	1. Evaluate all operations for fire and explosion potential.	1. Inspect fire suppression equipment on a regular

PHYSICAL/ENVIRONMENTAL HAZARD ANALYSIS		
HAZARD	PRE PLANNING TO CONTROL HAZARD	ACTIVE CONTROL MEASURES
Explosions	2. Define specific procedures for unique operations presenting unusual hazard such as flammable tank demolition. 3. Ensure that properly trained personnel and specialized equipment is available. 4. Define requirements for handling and storage of flammable liquids on site, need for hot work permits and procedures to follow in the event of fire or explosion. 5. Define the type and quantity of fire suppression equipment needed on site. 6. Coordinate which local fire fighting agencies to discuss unique fire hazards, hazardous materials, etc. 7. Ensure site operations comply with 29CFR 1910.157G.	basis. 2. Store flammables away from oxidizers and corrosives. 3. Utilize Hot Work Permit for all hot work on-site. 4. Follow any site specific procedures regarding work around flammables. 5. Review and practice contingency plans. 6. Discuss on regular basis at scheduled safety meetings.
Flammable Vapor and Gases	1. Evaluate site to determine sources of likely flammable gas or vapor generation. 2. Develop specific procedures to be followed in the event of exposure to flammables. 3. Specify specialized equipment needs for inerting flammable atmospheres, ventilating spaces and monitoring flammable vapor concentrations. 4. Define requirements for intrinsically safe equipment. 5. Develop contingency plan to follow in the event of fire or explosion.	1. Calibrated monitoring equipment available and utilized by trained personnel whenever working where flammable gas or vapor is present. 2. Monitoring performed at regular frequency and in all areas where vapor could generate or pool. 3. Equipment and operations shut down when threshold levels are exceeded. 4. Contingency plans reviewed regularly by all involved personnel. 5. Work areas are carefully inspected to look for possible ignition sources. Sources are removed. 6. Operations shut down if specific task procedures can't be followed to the letter.
Heavy Equipment Operation	1. Define equipment routes and traffic patterns for site. 2. Insure that operators are properly trained on equipment operation for all equipment required on project. 3. Define safety equipment requirements, including back up alarm and roll over, for all equipment on site. 4. Define equipment routes and traffic patterns for site. 5. Implement SOP of requiring operators to safety inspect equipment on a daily basis in accordance with manufacturer requirements. 6. Evaluate project requirements to ensure that equipment of adequate capacity is specified.	1. Equipment inspected as required. 2. Equipment repaired or taken out of service. 3. Ground spotters are assigned to work with equipment operators. 4. Utilize standard hand signals and communication protocols. 5. Personnel wear the proper PPE; utilize hearing protection, gloves for handling rigging, etc. 6. Equipment safety procedures discussed at daily scheduled safety meetings. 7. Personnel do not exceed lifting capacities, load limits, etc. for equipment in question. 8. Personnel follow basic SOP's which prohibit passengers on equipment, activating brakes and grounding buckets, securing loads prior to movement, etc.
Illumination	1. Evaluate all operations and work areas to determine lighting requirements. 2. Specify specialized lighting requirements including explosion proof, intrinsically safe, lighting needs. 3. Determine if nighttime outdoor operations are necessary. 4. Evaluate tasks to be performed and number of light plants necessary to allow operations. 5. Ascertain if outdoor lighting from nighttime operations will have an impact on surrounding communities.	1. Inspect specialized equipment and discard or replace as needed. 2. Add additional lighting to areas with lighting deficiencies. 3. Inspect drop cords and portable lights on regular basis. Replace or repair as necessary. 4. Utilize licensed electrician for initial power supply installation
Noise	1. Local community noise standards examined. 2. Expected loud operations evaluated to determine compliance with community standards. 3. Loud operations scheduled for approved time periods. 4. Noise level standards established for equipment brought onto site. 5. Hearing protection requirements defined for personnel expected to have excessive exposures.	1. Personnel receive annual audiogram. 2. Personnel required to wear hearing protection. 3. Routine noise level monitoring and dosimetry performed. 4. Defective equipment repaired as needed. 5. Ongoing hearing conservation education promoted at scheduled safety meetings. 6. Medical evaluation following noise (impact) exposure if symptoms present themselves.
Personal Injuries	1. Site operations will be evaluated for exposures with serious injury potential such as falling objects, pinch points, flying objects, falls from elevated surfaces, etc. 2. A written Fall Prevention Program will be developed if workers will be required to work at heights greater than 6 feet from	1. Personnel will wear required PPE. 2. Safe routes to/from work zones will be developed and marked 3. Structural deficiencies will be corrected or clearly marked

PHYSICAL/ENVIRONMENTAL HAZARD ANALYSIS		
HAZARD	PRE PLANNING TO CONTROL HAZARD	ACTIVE CONTROL MEASURES
	unguarded work locations. 3. PPE requirements will be based on potential for injury.	4. Specialized equipment such as rope grabs, winches, etc. will be inspected prior to each use. 5. Defective equipment will be immediately replaced. 6. All injury and near miss incidents will be reported to the SHSO. 7. First aid/CPR trained person on site at all times. 8. First aid on site. 9. Transport for medical care if necessary.
Small Equipment Usage	1. Site operations will be evaluated to determine need for specialized intrinsically safe, explosion-proof and UL approved equipment and instruments. 2. Implement requirement for G.F.I., double insulated tool usage, or assured grounding program in all outdoor operations, will be utilized. 3. Specify equipment needs to ensure that equipment used only for the purpose for which it is designed and to prevent abuse or misuse of the equipment. 4. Specify requirements for the inspections and maintenance of specialized equipment. 5. Specify that all equipment utilized on the project meets all OSHA requirements.	1. Inspect each tool prior to each use. 2. Ensure all guards are in use and properly positioned. 3. Ensure item being worked on is properly braced if necessary. 4. Get help when appropriate to hold or brace item being worked on. 5. Wear leather or other appropriate gloves in addition to level C PPE.
Weather Conditions	1. Evaluate prevailing weather conditions for the site. 2. Contingency plans developed for likely severe weather conditions such as tornado, and extreme thunderstorm. 3. Provide for daily weather forecast service in extreme weather areas. 4. Plan to weatherize safety systems, such as showers and eye washes that would be impacted by extreme cold weather. 5. Order necessary specialized cold weather clothing. 6. Grounding and bonding requirements defined for thunderstorm areas. 7. Sheltered air conditioned break areas provided for extreme hot and cold weather zones.	1. Employees trained in contingency plan for severe weather conditions. 2. Emergency water sources inspected regularly in cold areas. 3. Weather service contacted regularly during storm conditions. 4. Supervisory personnel cease operations during extreme storm conditions (i.e., thunderstorms). 5. Personnel evacuate to safe assembly area.
Heat Stress	1. Anticipate possible high temperatures (summer months). 2. Be aware of heat stress symptoms, quit sweating, pale, clammy skin, dizziness	1. Cool break area. 2. Drink water. 3. Buddy system/ awareness 4. First aid on site. 5. Medical care if symptoms persist.
Cold Stress	1. Anticipate possible low temperatures (winter months). 2. Remember the temperature does not have to be below freezing to have a cold stress situation.	1. Warm break area. 2. Warm decaffeinated drinks. 3. Buddy system/ awareness. 4. First aid on site. 5. Medical care if symptoms persist

5.0 Training Requirements

This section describes ER's project training requirements and site visitor policy. Training of all personnel shall be in accordance with OSHA 29 CFR 1910.120 and the National Fire Protection Association (NFPA) standards.

5.1 Project Training Requirements

The training listed in Table 5-1 will be provided to project participants as noted. All required training will be documented and this documentation maintained onsite.

Project Training Requirements:		
Topic	**Description**	**Personnel**
General Training		
Site Safety and Health Plan	Site-specific hazards and control requirements, before commencement of field work. Includes training in proper	All project personnel

Project Training Requirements:		
Topic	**Description**	**Personnel**
	use and care of PPE.	
Activity Hazard Analysis	Activity-specific hazards, controls and training requirements for a specific phase or activity, prior to commencement of activity	Workers, supervisors and oversight personnel engaged in the activity
Daily Safety Briefing	In addition to plan-of-the-day and daily hazard reminders, often used to cover a specific topic; provided refresher training on various issues; or changes in hazards, controls or procedures.	All field workers, supervisors and field oversight personnel
Emergency Action Plan	Roles, responsibilities, recognition of emergency conditions, reporting and notification, evacuation and other procedures.	All project personnel, with detailed information on procedures for workers with special responsibilities
OSHA 40-Hour Hazardous Waste Operation (HAZWOPER) Training	General hazards and controls for hazardous waste activities at remediation sites, prior to performing work in an exclusion zone.	General site workers, supervisors, oversight personnel on HAZWOPER sites
OSHA 8-Hour Supervisor	Managing HAZWOPER work activities	Supervisors and management support staff on HAZWOPER sites
OSHA 8-Hour Refresher	Current annual refresher for HAZWOPER sites.	Workers, supervisors and oversight personnel engaged in the activity
Hazard Communication	Requirements for MSDS, labels; hazards of site materials and controls; location of and access to inventories and MSDS.	All project personnel potentially exposed to hazardous materials
Fire Extinguisher	General education on selection, distribution, and proper use of fire extinguishers.	All project personnel
Special Training		
Asbestos Supervisor or Worker per 29 CFR 1910.1001	Hazards and controls for asbestos contaminated materials/debris prior to performing work in exclusion zone	All project personnel potentially exposed to asbestos contaminated materials/debris
First aid/ Cardiopulmonary Resuscitation (CPR)	Red Cross, National Safety Council or other authorized course, with current refresher	At least 2 project personnel
Fall Protection	Fall (from elevation) hazards, fall protection techniques, especially proper use of personal fall arrest systems and rescue procedures.	Task-specific, workers exposed to fall hazards.
Lockout/Tagout	Site-specific energy control and verification procedures.	Authorized personnel working on de-energized systems, and affected employees whose work may be impacted by a lockout/tagout situation.
Other Heavy Equipment operations	Qualified by Construction Manager, Superintendent or Equipment Supervisor as documented on ER Equipment Operator Qualifications Form	Equipment Operators
Power tools (e.g. chain saws, chippers, powder-actuated tools, compressed air systems)	Hazards and proper use and maintenance as described in operations manual. Powder-operated tool users certified by manufacturer.	Tool users

5.2 Visitor Indoctrination Policy

All site visitors will be required to review the daily tailgate safety issues and sign the visitor log. At a minimum, all visitors must be informed of the anticipated hazards and PPE requirements, designated work zones, escort procedures, and emergency procedures.

6.0 PERSONAL PROTECTIVE EQUIPMENT

The following is a brief description of the personal protective equipment, which may be required during various phases of the project. The U.S. EPA terminology for protective equipment will be used; Levels A, B, C and D.

Respiratory protective equipment shall be NIOSH-approved and use shall conform to OSHA 29 CFR Part 1910.134 Requirements. Each employer shall maintain a written respirator program detailing selection, use, cleaning,

maintenance and storage of respiratory protective equipment. The written Respirator Program will be maintained at the local and regional offices.

6.1 Level A Protection Shall Be Used When: (NOT ANTICIPATED)

- The extremely hazardous substance requires the highest level of protection for skin, eyes and the respiratory system;
- Substances with a high degree of hazard to the skin are known or suspected;
- Chemical concentrations are known to be above IDLH levels; or,
- Biological hazards requiring Level A are known or suspected.

6.2 Level B Protection Shall Be Used When: (NOT ANTICIPATED)

- The substance(s) has been identified and requires a high level of respiratory protection but less skin protection;
- Concentrations of chemicals in the air are IDLH or above the maximum use limit of an APR with full-face mask;
- Oxygen deficient or potentially oxygen deficient atmospheres (<19.5%) are possible; and/or, Confined space entry may require Level B.
- Incomplete identification of gases and vapors, but not suspected to be harmful to skin or skin absorbable

Level B Protective Equipment at a Minimum Shall Consist of:

Supplied Air Respirator	Fullface
Cartridges (type)	N/A
Chemical Resistant/Protective Coveralls (type)	Saranex (Acid Suit for Acids) or PolyTyvek, Saranex BR (for cyanide)
Gloves	Nitrile inner/outer
Safety shoes/Boots (type)	Chemical Resistant Steel Toed
Hard Hat	NIOSH approved
Other (List ____)_____	N/A
Modifications:	Use leather gloves when handling sharp objects.

6.3 Level C Protection Shall Be Used When:

- The same level of skin protection as Level B, but a lower level of respiratory protection is required;
- The types of air contaminants have been identified, concentrations measured, and an air-purifying respirator is available that can remove contaminants; or,
- The substance has adequate warning properties and all criteria for the use of APR respirators has been met

Level C Protective Equipment at a Minimum Shall Consist of:

Air Purifying Respirator	NIOSH approved Full-face
Cartridges (type)	P100
Chemical Resistant/Protective Coveralls (type)	Tyvek inner layer with a particulate barrier outer
Gloves	Nitrile inner/leather outer*
Safety shoes/Boots (type)	Chemical Resistant Steel Toed
Hard Hat	ANSI approved
Respiratory Inserts	As required
High Visibility Garment	ANSI Type 2 high-visibility
Modifications:	* Cut resistant gloves will be used when handling metal and other sharp objects.

6.4 Mod Level D Protection Shall Be Used When:

- The atmosphere is demonstrated to be within OSHA permissible limits
- Work functions preclude splashes, immersion or the potential for unexpected inhalation of, or contact with, hazardous concentrations of harmful chemicals.

Mod Level D Protection Equipment at a Minimum Shall Consist of:

Chemical Resistant/Protective Coveralls	Poly-coated Tyvek or Particulate Barrier or equivalent for both
Safety Shoes/Boots	Steel toed/shank work boots
Boot Covers (booties)	Latex
Work Gloves	Cotton or Leather*
Hard Hat	ANSI approved
High Visibility Garment	ANSI Type 2 high-visibility
Face Shield	As necessary
Safety Glasses	ANSI approved
Modifications:	* Cut resistant gloves will be used when handling metal and other sharp objects.

6.5 Level D Protection Shall Be Used When:

- The atmosphere is demonstrated to be below OSHA permissible exposure limits
- Work functions preclude splashes, immersion or the potential for unexpected inhalation of, or contact with, hazardous concentrations of harmful chemicals.

Level D Protection Equipment at a Minimum Shall Consist of:

Standard Work Clothing	Long pants/sleeved shirt
Rain Suit	As required
Safety Shoes/Boots (type)	Steel toed/shank
Boot Covers (booties)	During muddy conditions as necessary
Work Gloves	Cotton or Leather*
Hard Hat	ANSI approved
Safety Glasses	ANSI approved
High Visibility Garment	ANSI Type 2 high-visibility
Modifications:	* Cut resistant gloves will be used when handling metal and other sharp objects.

6.6 Decisions to Upgrade/Downgrade PPE

All decisions to downgrade from Level B to C or D must be accompanied by air monitoring results. The Regional Safety Managers must be advised of on-site decisions to downgrade. All decisions must be documented with an Addendum to the Plan.

The following conditions will necessitate reevaluation of PPE use.

- commencement of a new work not previously identified
- change of job tasks during a work phase
- change of season/weather
- contaminants other than those identified in Safety Plan
- change in ambient levels of contaminants
- change in work which affects degree of chemical contact

6.7 Project Personal Equipment Requirements

Project Personal Protective Equipment Requirements:							
Activity	**Respiratory Protection**	**Body Protection**	**Head Protection**	**Hand Protection**	**Eye/Face Protection**	**Foot Protection**	**Hearing Protection**
Site Mobilization (Level D)	None	Standard work clothes	ANSI-approved hard hat	Cut resistant work gloves	ANSI-approved safety glasses	ANSI-approved safety boots	Plugs or muffs when using power tools
Landfill Cell Construction (Level D)	None	Standard work clothes	ANSI-approved hard hat	Cut resistant work gloves	ANSI-approved safety glasses	ANSI-approved safety boots	Plugs or muffs when working in or around heavy equipment
Excavation and Building debris removal and loading (Level C)	Full-face Air-purifying respirator with P100 cartridges	Particulate barrier or equivalent coverall	ANSI-approved hard hat	Latex inner/Cut resistant outer gloves, if necessary	Full-face APR	ANSI-approved safety boots	Plugs or muffs when working in or around heavy equipment
Demobilization (Level D)	None	Standard work clothes	ANSI-approved hard hat	Cut resistant work gloves	ANSI-approved safety glasses	ANSI-approved safety boots	Plugs or muffs when using power tools

Personal Protective Equipment Inspection and Care:

Inspection and care of PPE are covered in the ER Corporate SOP HS-24.

6.8 Respiratory Protection Program

ER shall implement HS-26 Respiratory Protection Program for its employees and subcontractors and train them on its contents. The program will be administered by the SHSO.

Respiratory protective equipment shall be NIOSH-approved and use shall conform to OSHA 29 CFR Part 1910.134 Requirements. ER and subcontractors shall maintain a written respirator program detailing selection, use, cleaning, maintenance and storage of respiratory protective equipment.

7.0 Medical Monitoring Requirements

7.1 Pre-Employment Medical Examination

a. Pre-employment medical examinations are required for persons working at hazardous waste sites.
b. All examinations must be completed and documented prior to assignment to this site.
c. All examinations will be conducted following parameters established by WorkCare™.

7.2 Site Specific Medical Examination

a. Medical evaluation per 29 CFR 1910.1001 for asbestos workers will be added to protocol.

7.3 Annual Medical Examination

a. The medical examination must have been within a 12-month period prior to on-site activity and repeated annually.

7.4 Suspected Exposure Medical Examination

a. Following any suspected uncontrolled exposure to site contaminants, personnel should be scheduled for a special medical examination.
b. The medical examination will be specific for the contaminants and the associated target organs or physiological system.
c. Questions regarding the type of medical examination can be directed to ER's Vice President, Health and Safety.

7.5 Contractor Physical Examination Requirements

a. All subcontractors entering the contamination reduction or exclusion zone will have adequate medical surveillance satisfying 29 CFR 1910.120.10 (f).

8.0 HEALTH AND HAZARD MONITORING

According to 29 CFR 1910.120 (h) Air Monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection needed on-site.

8.1 Routine Air Monitoring Requirements

- Upon initial entry to rule out IDLH conditions
- When the possibility of an IDLH condition or flammable atmosphere has developed
- When work begins on a different portion of the site
- Contaminants other than those previously identified are being handled
- A different type of operation is initiated
- Employees are handling leaking drums or containers or working in areas with obvious liquid contamination
- During confined space work

Air monitoring will consist at a minimum of the criteria listed below. All air monitoring data will be documented and available in the command post site files for review by all interested persons. Air monitoring instruments will be calibrated and maintained in accordance with the manufacturer's specifications. Calibration and maintenance performed will be entered in the site log and/or instrument log book.

8.2 Site Specific Air Monitoring Requirements

Health Hazard Monitoring:					
Real Time (Air, noise, heat, radiation, light)					
Activity	**Target Analyte**	**Instrument**	**Frequency**	**Action Levels**	**Actions/Upgrade and Rationale**
Building debris removal and loading	Asbestos	Gilian personal sampling pumps or equivalent	Initial and daily	½ PEL and Excursion limits per 29CFR 1926.1101	Cease operations and re-evaluate procedures and engineering controls
Site wide	Elevated temperature and/or pulse	Thermometer	Per HS-17	Per HS-17 Heat Stress	Move to cool area, provide fluids, remove outer protective, garments, loosen clothing, and monitor

* The reading must be sustained for at least one (1) minute in the breathing zone.

8.3 Integrated Personal Exposure Monitoring:

Sampling for asbestos shall be conducted by ER utilizing equipment and media appropriate to OSHA methods. Analysis will be done by AIHA accredited laboratory. Additional area sampling may be conducted by START in accordance with their SOPs per regulatory and analytical requirements. Copies of all sampling data, including instrument calibration and maintenance, personal data sheets, COCs, and analytical results shall be provided to ER.

9.0 SITE CONTROL AND GENERAL FIELD SAFETY RULES

9.1 Work Zones

The primary purpose for site controls is to establish the hazardous area perimeter, to reduce migration of contaminants into clean areas and to prevent access or exposure to hazardous materials by unauthorized persons.

At the end of each workday, the site should be secured or guarded, to prevent unauthorized entry. All areas of the building with access to the public will be closed by barricades.

ER will install temporary fencing on the North and West sides of the building out side of the side walks. Orange snow fence will be installed along the south parking area.

Site work zones will include:

Clean Zone/Support Zone (SZ)

This uncontaminated support zone or clean zone will be the area outside the exclusion and decontamination zones and within the geographic perimeters of the site. This area is used for staging of materials, parking of vehicles, office and laboratory facilities, sanitation facilities, and receipt of deliveries. Personnel entering this zone may include delivery personnel, visitors, security guards, etc., who will not necessarily be permitted in the exclusion zone. All personnel arriving in the support zone will upon arrival, report to the command post and sign the site entry/exit log. There will be one controlled entry/exit point from the clean zone to the decontamination zone.

1) Location of Clean Zone: Site entrance

Contamination Reduction Zone (CRZ)

The contamination reduction zone will provide a location for removal of contaminated personal protective equipment and final decontamination of personnel and equipment. All personnel and equipment should exit via the decon area. A separate CRZ area will be established for heavy equipment.

1) The CRZ is a buffer zone between contaminated and clean areas and will be identified by yellow banner guard or barricade fencing.
2) Decon line is located: At the overhead door behind the building

Exclusion Zone/Hot Zone (EZ)

The exclusion zone will be the "hot-zone" or contaminated area inside the site building. Entry to and exit from this zone will be made through a designated point and all personnel will be required to sign the hot zone entry/exit log located at the decon area. Appropriate warning signs to identify the EZ should be posted (i.e. "DANGER - AUTHORIZED PERSONNEL ONLY", "PROTECTIVE EQUIPMENT REQUIRED BEYOND THIS POINT", etc.) Exit from the EZ must be accompanied by personnel and equipment decontamination as described in Section 10.0.

1) Will be identified by red banner guard or signs.
2) General Safety Rules for EZ
    a. wear the appropriate level of PPE defined in plan
    b. do not remove any PPE
    c. no smoking, eating or drinking
    d. no horseplay
    e. no matches or lighters
    f. implement the communication and line of sight system

9.2 General Field Safety Rules

- Horseplay is not permitted at any time.
- Workers are not permitted to roam the building outside of established work zones and the route to the work zone
- All visitors must be sent to the command post.
- It is ER policy to practice administrative hazard control for all site areas by restricting entrance to exclusion zones to essential personnel and by using operational SOPs.
- Whenever possible, avoid contact with contaminated (or potentially contaminated) surfaces. Walk around (not through) puddles and discolored surfaces. Do not kneel on the ground or set equipment on the ground. Stay away from any waste drums unless necessary. Protect equipment from contamination by bagging.
- Eating, drinking, or smoking is permitted only in designated areas in the support zone.
- Hands and face must be thoroughly washed upon leaving the decon area.
- Beards or other facial hair that interferes with respirator fit will preclude wearing a respirator.
- All equipment must be decontaminated or discarded upon exit from the exclusion zone.
- All personnel exiting the exclusion zone must go through the decontamination procedures described in Section 10.0.
- Safety Equipment described in Section 6.0 will be required for all field personnel.
- Personnel will only travel in vehicles where individual seats for each occupant are provided.
- Seat belts will be worn as required.
- Fire extinguishers will be available on site and in all areas with increased fire danger such as the refueling area.
- A minimum of two personnel will always be on site whenever heavy equipment is operated.
- Only necessary personnel need to be on or around heavy equipment.
- Employees will not interfere with or tamper in any way with air monitoring equipment.
- Backhoes or other equipment with booms shall not be operated within 10 feet of any electrical conductor.

Minimum Clearance from Energized Overhead Electric Lines

NOMINAL SYSTEM VOLTAGE	MINIMUM REQUIRED CLEARANCE
0-50 kV	10 feet
51-100 kV	12 feet
101-200 kV	15 feet
201-300 kV	20 feet
301-500 kV	25 feet
501-750 kV	35 feet
751-1000 kV	45 feet

- Visitor log will be maintained at the command post or with the security guard. All personnel coming on site will sign in and out on a daily basis.
- Security will be maintained at the site by closing all gates during normal work hours. Site will be locked up in the evening.
- If unauthorized members of the public are found on site, contact RPM immediately and do not leave the individual unattended.
- Visitors are not allowed in the work areas without authorization. Visitors must sign in at the Command Post and receive authorization to enter the site.
- Buddy System
  - The buddy system is mandatory at anytime that personnel are working in the exclusion zone, remote areas, on tanks, or when conditions present a risk to personnel.

- A buddy system requires at least two trained/experienced people who work as a team and maintain at a minimum audible and/or visual contact while operating in the exclusion zone.

- Communication Procedures
  - Radios will be used for onsite communications and Channel(Repeater) will be the designated channel.
  - The crews should remain in constant radio or visual contact while on site.
  - The site evacuation signal will be 3 blasts on the air or vehicle horn.

10.0 DECONTAMINATION PROCEDURES

In general, everything that enters the EZ at this site, must either be decontaminated or properly discarded upon exit from the EZ. All personnel, including any state and local officials must enter and exit the EZ through the CRZ. Prior to demobilization, contaminated equipment will be decontaminated and inspected before it is moved into the SZ. Any material that is generated by decontamination procedures will be stored in a designated area in the EZ until disposal arrangements are made.

NOTE: The type of decontamination solution to be used is dependent on the type of chemical hazards. The decontamination solution for this site is water. Decontamination solution will be changed daily (at a minimum) and collected and stored on-site until disposal arrangements are finalized.

10.1 Procedures for Equipment Decontamination

Following decontamination and prior to exit from the EZ, the RM shall be responsible for ensuring that the item has been sufficiently decontaminated. This inspection shall be included in the site log.

Equipment decontamination will consist of the following steps:

1. Primary method will be remove clinging soil by using shovels, brooms, and brushes
2. The soil removed will be picked up for proper disposal
3. If dry decon is not sufficient the equipment shall be rinsed with high-pressure washer.

10.2 Procedure for Personnel Decontamination

1. This decontamination procedure applies to personnel at this site wearing Mod Level D protection. These are the minimum acceptable requirements:

   Station 1: Brush boots clean of soil prior to exiting property
   Station 2: Remove protective coverall and work gloves and place in proper container
   Station 3: Wash hands and face
   Station 4: Personnel will not wear or bring dirty/decontaminated clothing into the break areas.

2. This decontamination procedure applies to personnel at this site wearing Level C protection. These are the minimum acceptable requirements:

   THE CLEAN ROOM

   1. Enter clean room
   2. Remove street clothing
   3. Put on under clothing (shorts)
   4. Inspect respirator, put it on, check fit
   5. Proceed to dirty room

   THE DIRTY ROOM

1. Put on any equipment or additional clothing
2. Proceed to work area

THE WORK AREA TO DIRTY ROOM

1. Remove all outer protective clothing (except respirator)
2. Place disposable clothing in a bag
3. Proceed to shower

THE VACUUM AREA

1. Wash respirator (without removing)
2. Vacuum off your outer coverall suit
3. Remove coverall suit
4. Remove enter latex gloves
5. Remove respirator, wash, and disposes of filter

THE CLEAN ROOM

1. Wipe off, dress back into street cloths
2. Exit clean room

Eating, drinking, chewing gum/tobacco, smoking, or any practice that increases the probability of hand to mouth transfer and/or ingestion of materials is prohibited in any areas where the possibility of contamination exists and is permitted only in the designated break area.

Personnel will not wear or bring dirty/contaminated clothing into the break areas.

10.3 Disposition of Decontamination Wastes

1. All equipment and solvents used for decontamination shall be decontaminated or disposed of with the established waste streams.

2. Commercial laundries or cleaning establishments that decontaminate or are used to launder contaminated clothing shall be informed of the presence and potentially harmful effects of the contaminants.

11.0 HAZARD COMMUNICATION

Each contractor will be responsible for maintaining a copy of their Hazardous Communication Program and MSDS' on site. The following items are specific to this job site:

11.1 Material Safety Data Sheets

1. Material Safety Data Sheets will be maintained at the Command Post in the Health and Safety Binder or readily available electronically.
2. MSDS' will be available to all employees for review during the work shift.
3. See Attachment C and/or the ER Health and Safety Binder or on computer.

11.2 Container Labeling

1. All containers received on site will be inspected by the contractor using the material to ensure the following:
    a. all containers clearly labeled
    b. appropriate hazard warning
    c. name and address of the manufacturer

11.3 The following chemicals were brought to the site:

1. Gasoline
2. Diesel Fuel
3. Sentinel Lockdown/Encapsulant

11.4 Employee Training and Information

1. Prior to starting work, each employee will attend a health and safety orientation and will receive information and training on the following:
   a. an overview of the requirements contained in the Hazardous Communication Standard
   b. hazardous chemicals present at the site
   c. the location and availability of the written Haz Com Program
   d. physical and health effects of the hazardous chemicals
   e. methods of preventing or eliminating exposure
   f. emergency procedures to follow if exposed
   g. how to read labels and review MSDS' to obtain information
   h. location of MSDS file and location of hazardous chemical list

See ER Health and Safety Binder for Hazard Communication Program and applicable MSDS'.

12.0 EMERGENCIES/INCIDENTS/INJURIES

It is essential that site personnel be prepared in the event of an emergency. Emergencies can take many forms; illnesses or injuries, chemical exposure, fires, explosions, spills, leaks, releases of harmful contaminants, or sudden changes in the weather. The following sections outline the general procedures for emergencies. Emergency information should be posted as appropriate.

12.1 Emergency Contacts for the Eaton Sugar Beet Factory Asbestos Site

SERVICE	CITY/LOCATION	EMERGENCY PHONE
Fire	Eaton, CO	911
Police	Eaton, CO	911
Sheriff	Weld County, CO	911
Ambulance	Elyria, OH	911
*Hospital	North Colorado Medical 1801 16th Street Greeley CO	970-352-4121
Occupational Medical Clinic	Nextcare Urgent Care 2928 W 10th Greeley, CO	970-351 8181
Poison Control Center		800-222-1222

*Map and directions to the hospital from site located in Attachment B

The following individuals have been trained in CPR and First Aid: Matt Francis, Luke Wisniewski

12.2 Additional Emergency Numbers

National Response Center	800-424-8802 (24 hr)
Center for Disease Control	404-488-4100 (24 hr)
AT&F (Explosives Information)	800-424-9555
Chemtrec	800-424-9300

ER Corporate Contacts

ER (24 Hr.)	888-814-7477
ER Corporate Office (St. Louis)	636-227-7477

12.3 Emergency Equipment Available On-Site

Communications Equipment	Location
Mobile Telephones	RM – Matt Francis – 303-994-6611
Two-Way Radios	Office Trailer, and with crew members
Emergency Alarms/Horns	Vehicle Horns / Air Horn
Other:	N/A

Medical Equipment	Location
First Aid Kits	ER Vehicles/Command Post Office/CRZ
Stretcher/Backboard	
Eye Wash Station: *(within 100 feet of hazard zone)*	ER Vehicles/Command Post Office/CRZ
Safety Shower	Decon Trailer(s)

Fire Fighting Equipment	Location
Fire Extinguishers	RM Vehicles / Command Post Office/CRZ
Other	Crew vehicle

Spill or Leak Equipment	Location
Absorbent Boom/Pads:	ER Vehicles Outside Decontamination area Various locations inside the work area to be made readily available
Dry Absorbent:	ER Vehicles Outside Decontamination area Various locations inside the work area to be made readily available

12.4 Incident Reporting/Investigations

- All incidents, including personal injury and property damage, must be reported to the RM, Supervisor, or SHSO **immediately**.
- The RM will contact the Project Health and Safety Manager by telephone immediately. The RM, SHSO, and effected employee(s) will conduct an immediate investigation of the incident and document all results on the Incident and Investigation Report form.
- The Response Manager will assign a supervisory individual to accompany all injured personnel to the clinic and follow guidelines outlined in the ER Return to Work Program.
- Copies of all Incident and Investigation Reports will be sent to the ER Vice President, Health and Safety.

13.0 EMERGENCY RESPONSE CONTINGENCY PLAN

13.1 Project Personnel Responsibilities during Emergencies

As the administrator of the project, the RM has primary responsibility for responding to and correcting emergency situations. The RM will:

- Take appropriate measures to protect personnel including: withdrawal from the exclusion zone, total evacuation and securing of the site or up-grading or down- grading the level of protective clothing and respiratory protection.
- Take appropriate measures to protect the public and the environment including isolating and securing the site, preventing run-off to surface waters and ending or controlling the emergency to the extent possible.
- Ensure that appropriate Federal, State and local agencies are informed, and emergency response plans are coordinated. In the event of fire or explosion, the local fire department should be summoned immediately. In the event of an air release of toxic materials, the local authorities should be informed in order to assess the need for evacuation. In the event of a spill, sanitary districts and drinking water systems may need to be alerted.
- Ensure that appropriate decon treatment or testing for exposed or injured personnel is obtained.
- Determine the cause of the incident and make recommendations to prevent the recurrence.
- Ensure that all required reports have been prepared.

13.2 Medical Emergencies:

Any person who becomes ill or injured in the exclusion zone must be decontaminated to the maximum extent possible. If the injury or illness is minor, full decontamination should be completed and first aid administered prior to transport. If the patient's condition is serious, at least partial decontamination should be completed (i.e., complete disrobing of the victim and redressing in clean coveralls or wrapping in a blanket.) First aid should be administered while awaiting an ambulance or paramedics. All injuries and illnesses must immediately be reported to the affected employees supervisor and/or SHSO. The PM must immediately report incident to the PHSM.

Onsite First Aid Support - Onsite medical support during project execution will be available from two or more individuals who are trained in First Aid and Cardiopulmonary Resuscitation (CPR) and blood borne pathogens.

First aid kits shall be Type III, 16 unit kits, including one pocket mouthpiece or CPR barrier. Kits shall be checked prior to use, and at least weekly when work is in progress to ensure that contents are replaced as used.

Medical Transport of Employees and Case Management - For non-emergency injuries, a local clinic will be identified with the assistance of the Corporate Medical Consultant, Work Care Work Care Incident Intervention (II) will be contacted immediately to establish a medical treatment plan prior to transporting the injured worker to the clinic. The Work Care II consultant will attempt to contact the clinic ahead of the arrival of the patient to establish oversight of case management. Under no circumstances will an injured employee drive unescorted to a hospital, clinic, etc. An employee with minor injury may be transported by car after first aid treatment is given. The SHSO or other project management personnel will transport the injured person to the facility. The employee who transports the injured person shall be trained in first aid and CPR whenever possible. When the injury is severe, or when in doubt concerning the severity of injury, the employee will be transported by ambulance.

Injured employees that require medical treatment or are taken to a doctor, hospital, clinic, etc., will not be allowed to resume work without a written return to work statement from the treating physician. This statement shall supply a medical diagnosis of the problem, the date of return to work, and work limitations. Should a return to work statement such as "light duty" be given, the treating physician will be contacted to determine the specific limitation. ER will make an assessment of work the employee normally performs whether or not the limitation interferes with the employee's normal work.

Whenever there are questions on the appropriateness of the diagnosis or prescribed course of treatment, Work Care will be contacted to arrange for a second opinion. Copies of all Incident and Investigation Reports will be sent to the ER Corporate Health and Safety Manager

13.3 Fire or Explosion:

In the event of a fire or explosion, the local fire department should be summoned immediately. Upon their arrival the OSC, RM or designated alternate will advise the fire commander of the location, nature and identification of the hazardous materials on- site.

If it is safe to do so, site personnel may:

- Use firefighting equipment available on site.
- Remove or isolate flammable or other hazardous materials which may contribute to the fire.

13.4 Spills, Leaks or Releases:

In the event of a spill or a leak, site personnel will:

- Locate the source of the spillage and stop the flow if it can be done safely.
- Begin containment and recovery of the spilled materials.

13.5 Evacuation Routes and Resources:

Evacuation routes and rally points will be determined have been established by work area locations for this site. All work areas have been provided with two designated exit points. Evacuation should be conducted immediately, without regard for equipment under conditions of extreme emergency. See site map for evacuation routes.

Evacuation notification will be three blasts on an air horn, vehicle horn, or by verbal communication via radio.

- Keep upwind of smoke, vapors or spill location.
- Exit through the decontamination corridor if possible.
- If evacuation is not via the decontamination corridor, site personnel should remove contaminated clothing once they are in a location of safety and leave it near the exclusion zone or in a safe place.
- The RM will conduct a head count to insure all personnel have been evacuated safely.
- In the event that emergency site evacuation is necessary, all personnel are to:
  1. Escape the emergency situation;
  2. Decontaminate to the maximum extent practical; and,
  3. Meet at the designated rally point.
- In the event that the command post is no longer in a safe zone, meet: Upwind location TBD.

ATTACHMENT A

SITE SAFETY PLAN AMENDMENTS

Site Safety Plan Amendment	
Amendment No.:	
Site Name:	
Date of Issue:	
Type of Amendment:	
Reason for Amendment:	
Alternate Safeguard Procedures:	
Required Changes in PPE:	

USEPA On-Scene Coordinator _____ (Date) _____

ER Response Manager _____ (Date) _____

ER Site Health and Safety Officer _____ (Date) _____

ER Project Health and Safety Manager _____ (Date) _____

ATTACHMENT B

SITE MAPS

mapquest

Trip to:
1801 16th St
Greeley, CO 80631-5154
9.25 miles
16 minutes

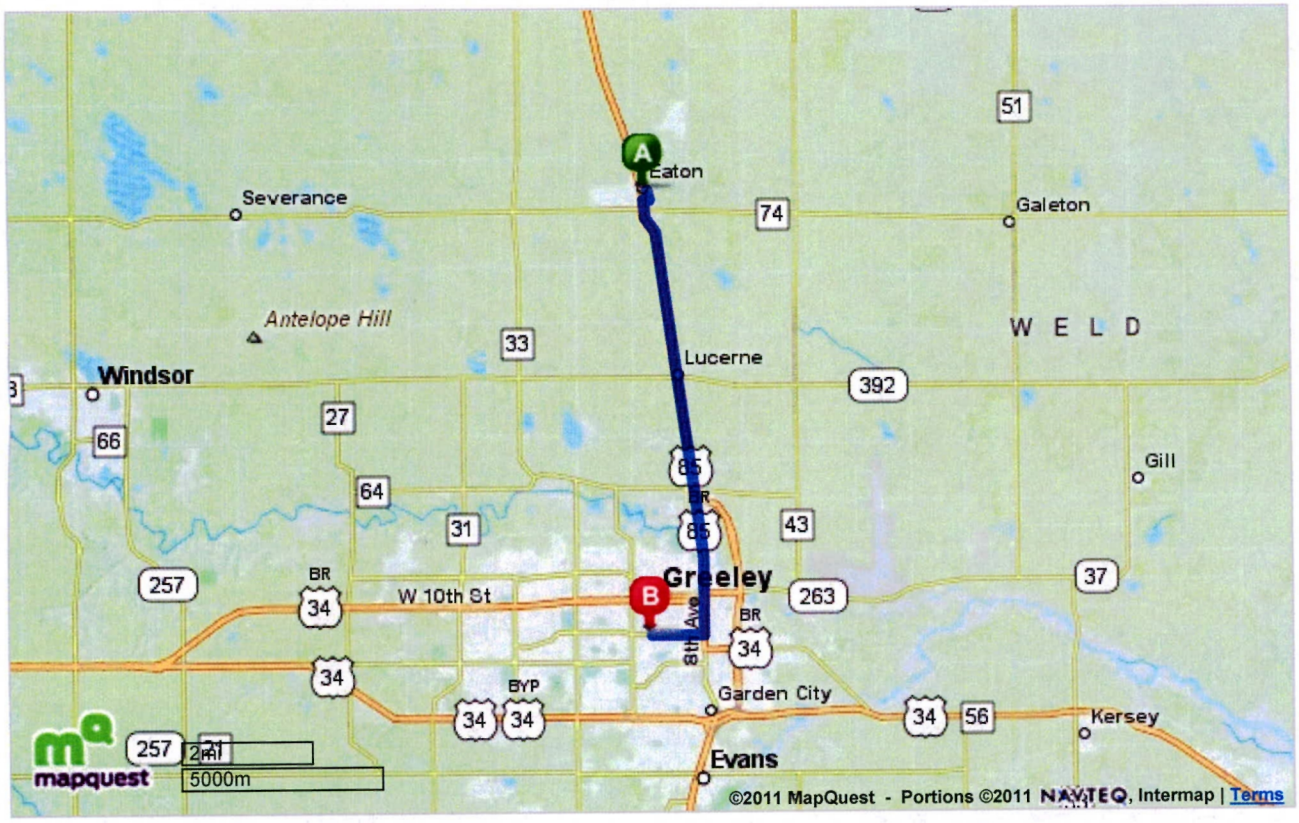
Notes

Hospital Route
North Colorado Medical
970 352 4121

A		**Eaton, CO**	**Miles Per Section**	**Miles Driven**
●		1. Start out going **south** on **Factory Rd** toward **E 2nd St**.	**Go 0.2 Mi**	0.2 mi
↱		2. Take the 1st **right** onto **E 2nd St**. *If you reach E 1st St you've gone a little too far*	**Go 0.1 Mi**	0.3 mi
↰	SOUTH 85	3. Take the 1st **left** onto **Oak Ave / US-85 S**. Continue to follow **US-85 S**. *Cross Fit Eaton is on the corner* *If you are on 2nd St and reach Elm Ave you've gone a little too far*	**Go 5.2 Mi**	5.5 mi
↑	SOUTH 85 BR	4. Stay **straight** to go onto **US-85-BR S**.	**Go 2.8 Mi**	8.3 mi
↱		5. Turn **right** onto **16th St**. *16th St is 0.1 miles past 15th St* *Roma Restaurant & Lounge is on the corner* *If you reach 17th St you've gone about 0.1 miles too far*	**Go 1.0 Mi**	9.3 mi
■		6. **1801 16TH ST** is on the **right**. *Your destination is just past 18th Ave* *If you reach 21st Ave you've gone about 0.1 miles too far*		9.3 mi
B		**1801 16th St** Greeley, CO 80631-5154	**9.3 mi**	**9.3 mi**

4/9 1220

Total Travel Estimate: **9.25 miles - about 16 minutes**



ATTACHMENT C

CHEMICAL HAZARD INFORMATION

ATTACHMENT Z

SITE SPECIFIC TRAINING RECORD